

A vertical rainbow-colored bar is located on the left side of the slide, extending from the top to the bottom. It features a gradient of colors: red, orange, yellow, green, cyan, blue, and purple.

# **OECA's Performance Measurement Template**

EPA Office of Enforcement and Compliance Assurance

# Performance Profile:

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## ▲ Indicators

- ◆ Impact on Environmental or Human Health Problems

## ▲ Outcomes (Sets 1 -7)

- ◆ Levels of Compliance in Regulated Populations
- ◆ Environmental or Human Health Improvements by Regulated Entities
- ◆ Responses of Significant Violators

## ▲ Outputs (Sets 8 -11)

- ◆ Monitoring Compliance
- ◆ Enforcing the Law
- ◆ Providing Assistance and Information
- ◆ Building Capacity

# EPA Enforcement and Compliance Assurance Program

## Performance Profile



= OUTCOMES  
= OUTPUTS

NON  
COMPLIANCE  
RATES



ENFORCEMENT



ASSISTANCE AND  
INFORMATION



INTEGRATED  
INITIATIVES



COMPLIANCE  
INCENTIVES



SIGNIFICANT  
VIOLATORS



MONITORING



CAPACITY  
BUILDING

<http://es.epa.gov/oeca/perfmeas>

# Definitions

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- ▲ Outputs: the products, goods and services provided to the program's direct customers or program participants (i.e. regulated and unregulated facilities, municipalities)
- ▲ Customers: those reached by the program activity. Often identifying the reach of a program is an essential activity unto itself. (e.g. Compliance Assistance Centers program)

# Definitions (*continued*)

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- ▲ Outcomes: changes or benefits that result from outputs. These can be short-term, intermediate and strategic (environmental).
  - short-term or client benefits: the changes or benefits that most closely result from the output. How the client benefits from the activity.
  - intermediate outcome: what the client does as a result of the output.
  - strategic/environmental: how the intermediate outcome benefits the environment.

# Creating the Performance Template

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- ▲ Applying the terms to your program elements:
  - Compliance Assistance
    - Client Benefits: Increased Understanding of Environmental Regulations
    - Intermediate Outcomes: Facility makes behavioral changes at their shop such as adopting BMPs, p2, adding pollution control that will then lead to improved env. performance
    - Environmental Outcomes: Discharges, wastes, material use reduced or prevented



# Applying the Performance Measurement Template

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- Compliance Monitoring
  - Client Benefits: Increased awareness and understanding of regulatory requirements
  - Intermediate Outcomes: Facilities may or may not make changes based on the inspection. Some make changes same day, some prior to further action, some only after further action. If action is taken the result is improved compliance
  - Environmental Outcomes: If improved compliance then improved ambient conditions and the prevention/reduction of discharges and emissions



# Applying the Performance Template

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- Enforcing the Law: EPA/State issues an informal or formal action that either requests/compels compliance and/or asks for a penalty.
  - Client Benefits/Short-Term Actions: Pays penalty. If the "client" follows the order or consent decree, then
  - Intermediate Outcomes: Improved compliance status; then
  - Strategic/Environmental Outcomes: improved ambient conditions and the prevention/reduction of discharges and emissions



# Is this Logic Modeling?

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- ▲ The first step (and often the hardest) in developing a Performance Framework of Logic Model is Identifying the Purpose of your Program, often, but not always, the problem you are trying to address.
- ▲ The activities are then what is hypothesized will cause the outcomes which will either solve your problem or meet the goals of your program
- ▲ A simple logic model, as I have done, puts the "if" and "thens" around the outputs and outcomes.



# **Is this what I do for an Evaluation?**

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- ▲ A logic model helps you to organize your activities for your evaluation
- ▲ "In the logic model, the boxes are the steps that can often be simply counted and monitored, and the lines connecting the boxes are the hypothesized linkages or causal relationships that require in-depth study to determine and explain what happened." (McLaughlin 2003)

# Is this what I do for an Evaluation?

## *(continued)*

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- ▲ "It is the testing of the linkages, the arrows in the logic chart, which allows the evaluator to determine if the program is working."  
(McLaughlin 2003)

# **Is this what I do for an Evaluation?**

## ***(continued)***

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- ▲ The irony is that what is really under a program's immediate sphere of influence are the inputs, outputs, client/benefits and intermediate outcomes; yet, we are increasingly being asked to measure the strategic/environmental outcomes which often rely on so many different factors.
- ▲ OECA has chosen to measure the 3rd tier or the 6 on the hierarchy of indicators for a small subset of our overall program: enforcement and parts of compliance monitoring.



# **OECA Measurement Cont...**

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- ▲ We have relied on measuring Behavioral Changes and Client Benefits for Compliance Assistance. The next few slides give examples of what we are doing.

# **OECA Measurement Cont...**

## ***(continued)***

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- ▲ We have relied on innovative survey work to test the causal links between outputs and outcomes.
  - Compliance Assistance Measurement (client benefits/intermediate outcomes)
  - Inspection Conclusion Data Sheet (intermediate outcomes/strategic outcomes)
  - Case Conclusion Data Sheet (strategic outcomes)
  - Statistically-Valid Compliance Rates (strategic outcomes)



# **The Measurement Continuum**

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- ▲ Reach/Utilization
- ▲ Understanding/Awareness
- ▲ Behavioral Change
  - regulatory and non-regulatory
- ▲ Environmental and Human Health Improvements



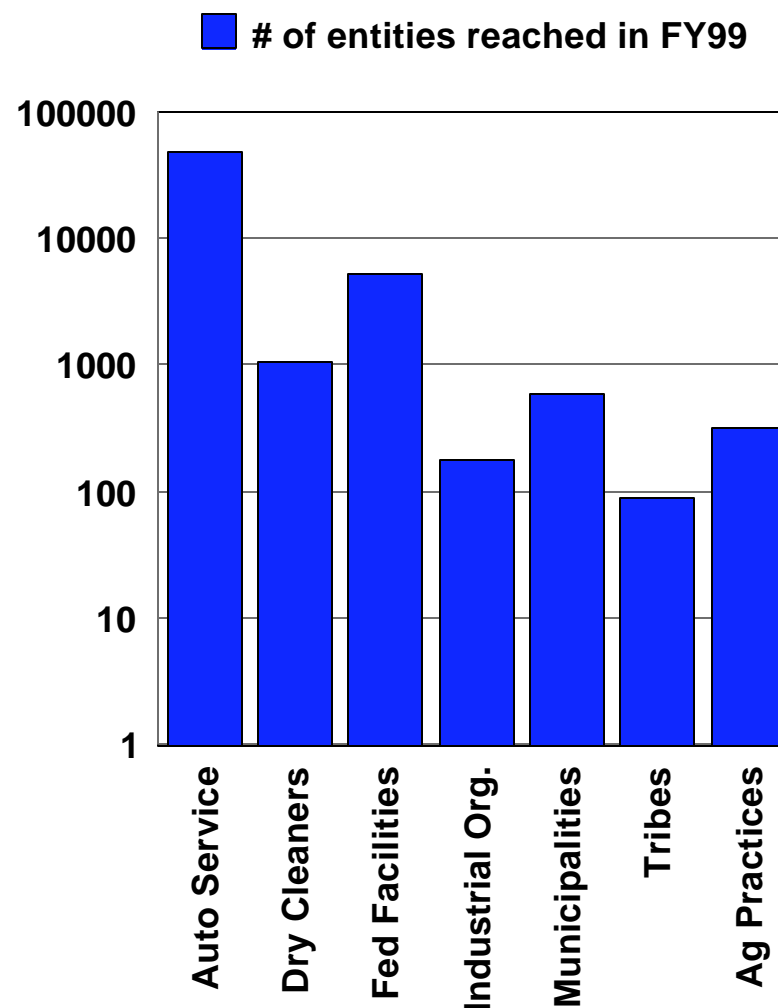
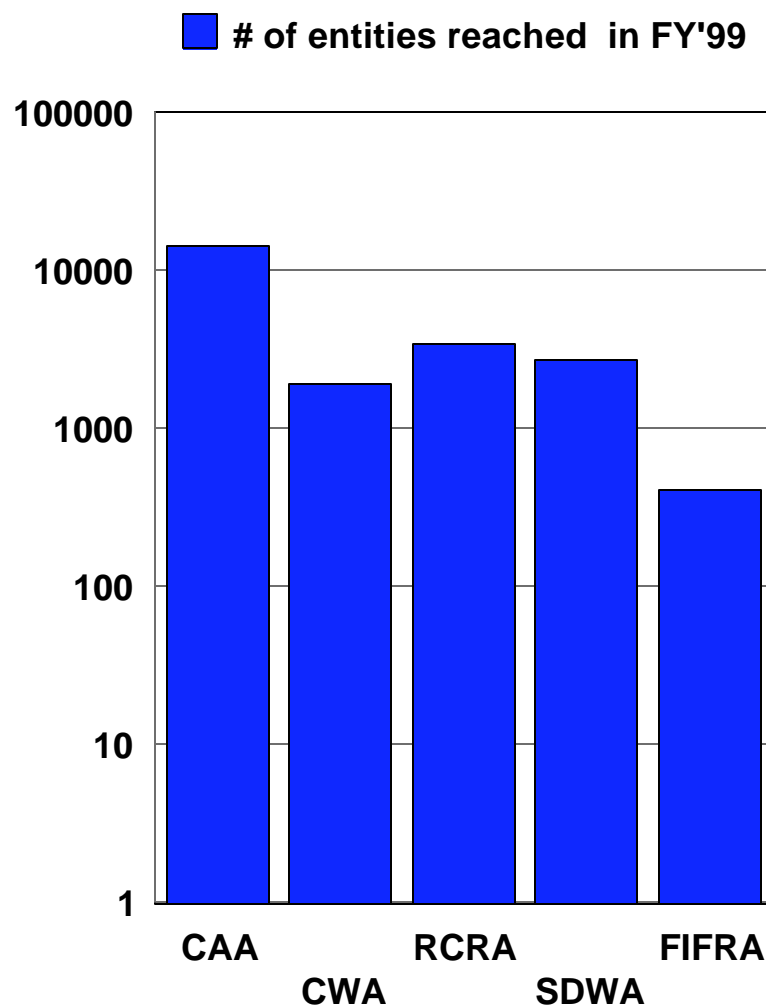
# Output Measures:

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- ▲ Number of activities conducted or number of facilities or entities "reached" through compliance assistance
- ▲ Also known as activity or reach measures
- ▲ Can be more useful if calculated as % of targeted universe



# EPA's Regional Compliance Assistance Activity in FY'99





# Our C.A. Outcome Measures

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- ▲ Awareness and Understanding
  - % who improve their understanding and awareness of regulatory requirements
  
- ▲ Best Method to Measure:
  - Pre and Post Test

# Our C.A. Outcome Measures (continued)

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## ▲ Behavioral Change: Regulatory

- # of regulatory requirements adopted (e.g. RCRA notifications, permits adopted, labels installed)
- changes in level of compliance, overall or with a few key indicators (checklist approach)
- # of regulatory requirements avoided
- % of facilities fulfilling reporting requirements
- % reduction in error rate on reporting forms

# Our C.A. Outcome Measures (continued)

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## ▲ Behavioral Change: Non-Regulatory

- # of facilities adopting process changes
- % of facilities adopting environmental management systems review recommendations
- % of facilities adopting BMPs
- % of recommendations adopted

# Our C.A. Outcome Measures (*continued*)

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- ▲ Environmental and Human Health Improvements
  - % of facilities that reduce waste or pollutant load and amount of reductions
  - pounds of waste reused or diverted from traditional disposal methods
  - pounds of VOCs reduced
  - increased acreage of land covered by BMPs



# How to get the data you need

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- ▲ self reporting
- ▲ site visits
- ▲ agency databases
- ▲ focus groups
- ▲ surveys

# Compliance Assistance Measurement Support

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## ▲ OC Developed:

- Generic ICR -- approved again
- Categories of Measures -- and database to track
- Training Manual and Training Course --- repeated every two years

# Sample Results of US Mexico Border Pilot



- ▲ Seminars were offered to businesses in both areas;
- ▲ Regional staff surveyed seminar participants 8 months after the Border seminars. 13% responded and said:
  - 95% felt they were more aware of env. requirements as a result of the compliance assistance offered
  - 50% said that they made changes in their env. practices as a result of the seminar.
  - 35% said they were able to reduce wastes as a result of the seminar.

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# Outcomes of Enforcement Actions

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## ▲ Case Conclusion Data Sheet

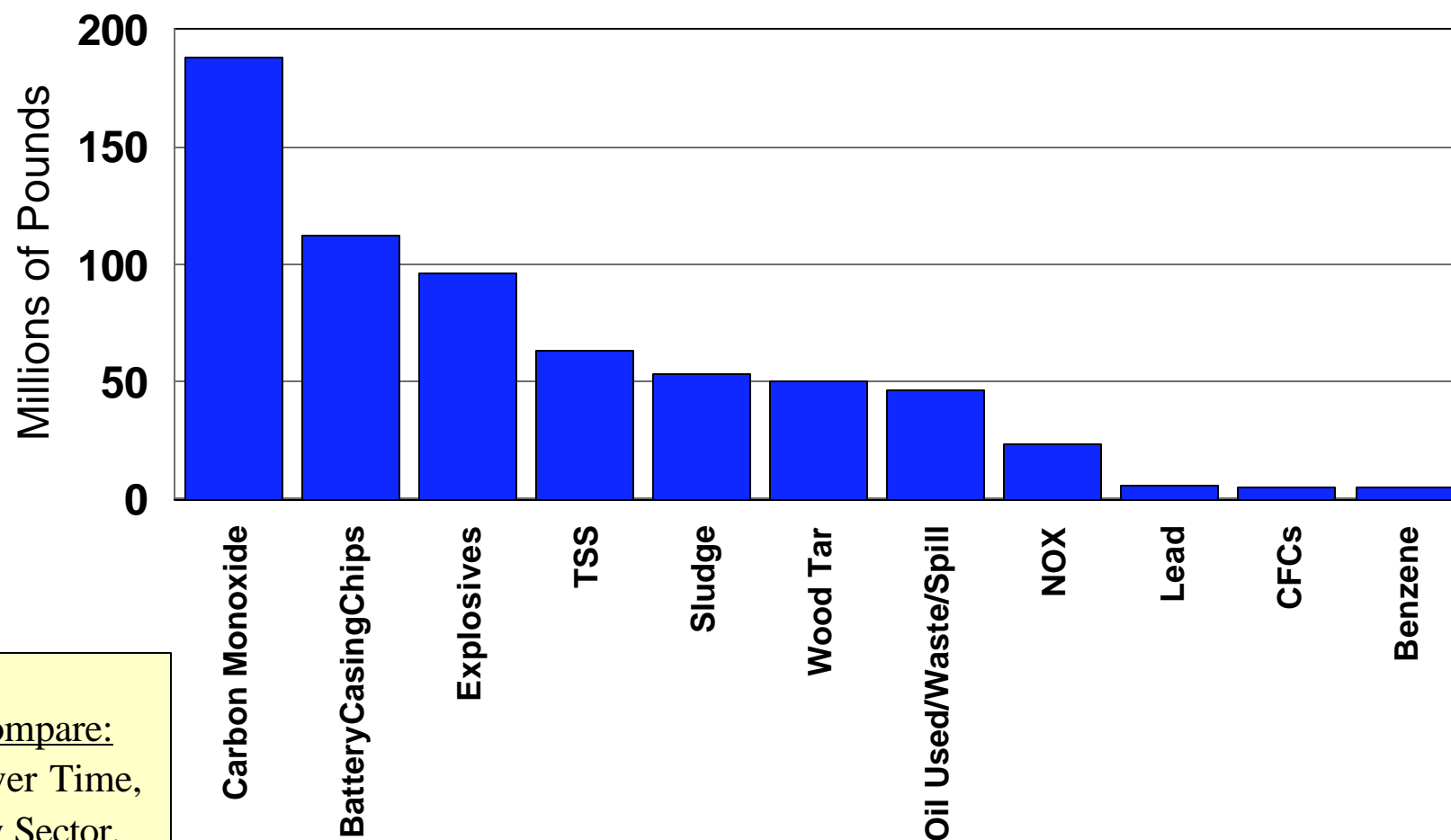
- started manually in 1996
- now an integral part of ICIS
- tracks physical and non-physical benefits of enforcement actions including SEPs
- tracks pounds of pollutants reduced, treated or properly disposed of
- separate methodologies for each media
- In FY2002 77% of all cases that should have an environmental result did

# How CCDS Data are Used

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- ▲ To fulfill our obligations under GPRA for 2002
  - 75% of concluded enforcement actions require physical action that result in pollutant reductions and/or changes in facility management or information practices.
  - 300 million pounds of pollutants are required to be reduced through settled enforcement actions
- ▲ To measure OECA's performance in terms of outcomes from enforcement activities

# EPA Enforcement Actions Reduce Pollution



Compare:  
Over Time,  
By Sector,  
By Region

Selected Pollutant Reductions Reported for FY98 Cases